

CLAIMS

1. A textile form touch sensor comprising first and second outer conductive layers (12, 14), and a third layer (16), intermediate of the first and second layers (12, 14), wherein the third layer (16) comprises a non-conductive textile coated with a piezoresistive material (18; 48).

2. A touch sensor according to claim 1, wherein the piezoresistive material (48) is non-continuous on the non-conductive third layer (16).

3. A touch sensor according to claim 2, wherein the piezoresistive material (48) is coated on the non-conductive third layer (16) so as to form an arrangement of defined blocks of piezoresistive material (48).

4. A touch sensor according to claim 2 or 3, wherein the first, second and third layers (12, 14, 16) are joined together at a point where no piezoresistive material (48) is present.

5. A touch sensor according to claim 4 as appended to claim 3, wherein the first, second and third layers (12, 14, 16) are joined together in a series of straight lines, the lines running in between the defined blocks of piezoresistive material (48).

6. A touch sensor according to any preceding claim, and further comprising a fourth layer (42), the fourth layer (42) being provided with visible indications (44).

7. A touch sensor according to any preceding claim, and further comprising two pairs of electrodes (20, 22), a first pair (20) connected to the first outer layer (12) and a second pair (22) connected to the second outer layer (14), the pairs of electrodes (20, 22) being perpendicular to each other.

8. A touch sensor according to claim 7, and further comprising electronic circuitry (30) connected to the pairs of electrodes (20, 22).

9. A method of manufacturing a textile form touch sensor comprising the steps of receiving (600) first and second conductive layers (12, 14), receiving (604) a third layer (16), the third layer (16) comprising a non-conductive textile coated with a piezoresistive material (18; 48), and forming (606) the layers such that the third layer (16) is intermediate of the first and second layers (12, 14).

10

10. A method according to claim 9, and further comprising, prior to the receiving (604) of the non-conductive third layer (16), coating (602) the third layer (16) with the piezoresistive material (18; 48).

11. A method according to claim 10, wherein the coating (602) of the third layer (16) with the piezoresistive material (48) creates a coating of piezoresistive material (48) on the non-conductive third layer (16) that is non-continuous.

12. A method according to claim 11, wherein the coating (602) of the third layer (16) with the piezoresistive material (48) creates a coating of piezoresistive material (48) on the non-conductive third layer (16) that forms an arrangement of defined blocks of piezoresistive material (48).

13. A method according to any one of claims 9 to 12, and further comprising, prior to the forming (606) of the layers, receiving (612) a fourth layer (42), the fourth layer (42) being provided with visible indications (44).

14. A method according to any one of claims 9 to 13, wherein the forming (606) of the layers comprises joining together the layers at a point where no piezoresistive material (48) is present.

15. A method according to claim 14, as appended to claim 12, wherein the forming (606) of the layers comprises joining together the layers in a series of straight lines, the lines running in between the defined blocks of piezoresistive material (48).

5

16. A method according to any one of claims 9 to 15, and further comprising affixing (608) two pairs of electrodes (20, 22) to the layers, a first pair (20) connected to the first outer layer (12) and a second pair (22) connected to the second outer layer (14), the pairs of electrodes (20, 22) being
10 perpendicular to each other.

17. A method according to claim 16, and further comprising connecting (610) electronic circuitry (30) to the pairs of electrodes (20, 22).